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(54) RECORDING AND REPRODUCING DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To record signals from plural cameras to a recording medium of large capacity and to reproduce by instantaneously retrieving an alarm point or the specified picture of camera on the selected data from the recording medium.

SOLUTION: Picture signals from the plural cameras 1-4 are selected and changed over based on information signal corresponded to each signal and sequentially recorded to the recording medium of large capacity. Meanwhile, the desired video signal of camera is retrieved based on the information signal and reproduced at random. Further, the digital process for the video signal and the compression/expansion process are executed.

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CLAIMS

[Claim(s)]

[Claim 1] The record regenerative apparatus characterized by recording and/or reproducing the input signal which was equipped with the signal selection means which is the record regenerative apparatus which records and/or reproduces two or more input signals and the information signal corresponding to said signal to a record medium, and chooses and changes said input signal based on said information signal, and was chosen with said signal selection means to said record medium.

[Claim 2] It is the record regenerative apparatus characterized by having the input-process means and compression processing means which said input signals are a video signal and/or a sound signal in a record regenerative apparatus according to claim 1, and digitize and process [compression] said input signal for every period [the], and the elongation processing means and output-processing means which carry out elongation processing of said compressed digital signal at the original signal.

[Claim 3] It has a signal incorporation means to incorporate said digital signal

compressed for said every period [the] every 2nd period in a record regenerative apparatus according to claim 2. Said information signal The record regenerative apparatus characterized by recording the digital signal after said compression for said every 2nd period for the information which identifies said the 2nd information or said input network of a period, or the information on time on a record medium including at least one.

[Claim 4] Said information signal is a record regenerative apparatus characterized by having a means to change the compressibility of a means to change said 2nd period, and/or said compression processing means based on said alarm information including alarm information [on a record regenerative apparatus according to claim 3 and further as opposed to said input network].

[Claim 5] It is the record regenerative apparatus characterized by said signal selection means setting up the switching time and/or change sequence over said input network in a record regenerative apparatus according to claim 1.

[Claim 6] Said signal selection means is a record regenerative apparatus characterized by said information signal setting up the switching time and/or change sequence over said input network in a record regenerative apparatus according to claim 5 based on said alarm information including the alarm

information over said input network.

[Claim 7] It is the record regenerative apparatus characterized by said compression processing means compressing one coma of a video signal into the data of predetermined size in a record regenerative apparatus according to claim 2.

[Claim 8] Said compression processing means is a record regenerative apparatus characterized by adding an invalid data to said data when the data with which one coma of a video signal was compressed in the record regenerative apparatus according to claim 7 are said under predetermined size.

[Claim 9] The record regenerative apparatus characterized by carrying out sequence record and carrying out random playback of said input signal and said information signal in a record regenerative apparatus according to claim 1 at said record medium.

[Claim 10] It is the record regenerative apparatus characterized by said record medium being a disk-like record medium in a record regenerative apparatus according to claim 1.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention can reproduce the signal with which two or more signals, such as a camera for a monitor, were especially specified on the medium as record media, such as a hard disk, in parallel to record actuation

about the record regenerative apparatus recorded and/or reproduced, and relates to the record regenerative apparatus for realizing efficient employment.

[0002]

[Description of the Prior Art] In the abnormality monitoring system of buildings, such as a hotel, a production line of the crime prevention monitoring system ****** works of various stores, and a dam, etc., or it records collectively the video signal which arranged many cameras for a monitor and was acquired from each camera for a monitor, the method which transmits to a pin center,large side and is supervised intensively is adopted. In those systems, one set of a monitor recorder is performing record and playback for the video signal which generally makes four cameras for a monitor 1 set, and is received from each camera for a monitor to the magnetic tape.

[0003] Moreover, while changing the video signal from each camera for a monitor arranged at two or more points one by one by the multiplexer, picture compression is performed and it transmits to a pin center,large side, and the monitoring system which each transmission signal is decrypted [monitoring system] by the pin center,large side, and makes a frame memory indicate writing and the picture signal of each frame memory by division at a monitor,

respectively is indicated by JP,8-22586,A.

[0004]

[Problem(s) to be Solved by the Invention] However, it is necessary to always perform record of said surveillance camera image continuously [for 24 hours], when a record medium is a magnetic tape like before, continuation record becomes one magnetic tape, and 24-hour continuation record is impossible. Moreover, in order to once suspend record actuation in order to see the playback image of said surveillance camera image, to rewind a magnetic tape into the target image part and to compensate continuation 24 time record, two or more sets of monitor recorders are needed. Moreover, since a record medium is a magnetic tape, there is a problem which requires time amount for tape search to an alarm index point. Furthermore, the above-mentioned monitor recorder has the problem of lives, such as a mechanism which makes it run a magnetic tape for about 24-hour continuation operation, and a head for record playback.

[0005] The purpose of this invention is to solve the above-mentioned trouble and offer the record regenerative apparatus aiming at performing record and playback for two or more video signals and sound signals from a camera to a record medium in few circuit scales.

[0006]

[Means for Solving the Problem] In order to realize the above-mentioned purpose, this invention is the record regenerative apparatus which records and/or reproduces two or more input signals and the information signal corresponding to said signal to a record medium, is equipped with the signal selection means which chooses and changes said input signal based on said information signal, and considers it as the configuration which records and/or reproduces the input signal chosen with said signal selection means to said record medium.

[0007] Moreover, in said record regenerative apparatus, said input signals are a video signal and/or a sound signal, and are considered as a configuration equipped with the input-process means and compression processing means which digitize and process [compression] said input signal for every period [the], and the elongation processing means and output-processing means which carry out elongation processing of said compressed digital signal at the original signal.

[0008] Moreover, it has a signal incorporation means to incorporate said digital signal compressed for said every period [the] every 2nd period, and said

information signal considers information which identifies said the 2nd information or said input network of a period, or information on time including at least one as the configuration which records the digital signal after said compression for said every 2nd period on a record medium.

[0009] Moreover, said information signal is considered as a configuration equipped with a means to change the compressibility of a means to change said 2nd period based on said alarm information including the alarm information over said input network further, and/or said compression processing means.

[0010] Moreover, in said record regenerative apparatus, said signal selection means is considered as the configuration which sets up the switching time and/or change sequence over said input network.

[0011] Moreover, said compression processing means is considered as the configuration which compresses one coma of a video signal into the data of predetermined size.

[0012] Moreover, said record regenerative apparatus is considered as the configuration which carries out sequence record and carries out random playback of said input signal and said information signal at said record medium.

[0013]

[Embodiment of the Invention] (Gestalt of the 1st operation) With the gestalt of operation of the 1st of this invention, it has two or more camera input means, the sequential change of the four camera video signal from Camera A to Camera D is carried out here, one video signal including said information signal is generated, and it records on the record medium (a hard disk is explained to an example below) in which random access is possible. Furthermore, the video signal with which the sequential change of said camera A to the camera D was carried out is outputted serially, and the regenerative signal from a hard disk is made to carry out the selection output of the camera image which dissociates according to said camera identification code, and targets this video signal.

[0014] The gestalt of operation of the 1st of this invention is explained using drawing 1 below. In drawing 1 , 1-4 are Cameras D from Camera A, and, as for each camera, a video signal and an information signal are outputted. Although said information signals are for example, camera identification code, photography time information, etc., it is not limited to these. 5 -- the synchronous processing section and 6 -- the change processing section and 7 -- the information signal separation section and 8 -- the 1st signal-processing section and 9 -- the record processing section and 10 -- the Disk device section and 11 --

a microcomputer and 12 -- for the separation processing section and 15, as for a monitor and 90, the change processing section and 16 are [the regeneration section and 13 / the 2nd signal-processing section and 14 / an actuation input terminal and 91] OSD control sections.

[0015] As for the camera D4, multiplex [of said information signal] has been carried out to the video signal from the camera A1, and each multiplex video signal is inputted into the synchronous processing section 5. The synchronous processing section 5 operates so that the synchronization of the multiplex video signal of said camera A to the camera D may be made in agreement. The purpose of the synchronous processing section 5 is for changing the four camera image of Camera A to the camera D per for example, a field unit or frame, and sometimes preventing turbulence of an image. Four multiplex video signals whose synchronizations corresponded by the synchronous processing section 5 are inputted into the change processing section 6. As for the change processing section 6, the sequential change of said four video signals is carried out by the Cam-sel signal from a microcomputer 11. For example, a ring-like change is performed per a field unit or frame, and the quota time amount for every camera makes from the video signal of Camera A to the video signal of

Camera D 1 field period of a video signal. Therefore, in 4 field period, a video signal changes the multiplex video signal from said four cameras, and is outputted as one video signal. Moreover, the time amount assigned to the change sequence of said camera and each camera can be set as arbitration with the Cam-sel signal from said microcomputer 11.

[0016] Moreover, although said camera identification code explained with the configuration which prepares signal generation in a camera side, it may carry out multiplex [of the camera identification code according to a Cam-sel signal] for said every video signal by the change processing section 6.

[0017] One side is inputted into the 1st signal-processing section 8 for a multiplex video signal, and another side is inputted into the information signal separation section 7. In the 1st signal-processing section 8, a video signal is changed into a digital signal, image compression processing is performed, and a digital compression signal is outputted. Furthermore, when the sound signal which is not illustrated is inputted into the 1st signal-processing section, said sound signal is changed into a digital signal, speech compression processing carries out and a voice digital compression signal is generated, and multiplex is carried out to said image digital compression signal, and it outputs to it.

[0018] Said information signal is for example, camera identification code, and to a predetermined location [in / in this identification code / said digital video signal for camera image 1 coma], for example, a head, information addition is made and it is outputted. In addition, it explains multiplex [of the information signal outputted from the 1st signal-processing section 8] later.

[0019] Camera identification code or time information etc. which it was further inputted into the information signal separation section 7, for example, have been stated by this example, such as a camera number, are extracted, and the video signal outputted from the change processing section 6 is inputted into the 1st signal-processing section 8. In the 1st signal-processing section 8, said extracted information signal is multiprocessed to said digital compression signal, and it inputs into the record processing section 9. The record processing section 9 performs signal modulation processing of having been suitable for the record medium, and one video signal with which Camera D was changed from said camera A is recorded on the Disk device section 10 (hard disk). The signals furthermore recorded on the Disk device section 10 may be two or more video signals.

[0020] A microcomputer 11 is a microcomputer which performs the system

control of the digital recording regenerative apparatus of the gestalt of the 1st operation, and performs actuation which sends out to said change processing section 6 a camera change signal (Cam-sel signal), for example, changes four cameras of Camera D from said camera A per field one by one. Moreover, it is also possible to set up independently the time amount assigned to camera change sequence or a camera depending on the actuation signal from the actuation input terminal 90. Furthermore, a microcomputer 11 performs data logging of the Disk device section 10 and playback control, record address generation, etc.

[0021] Next, playback actuation is explained. In the regeneration section 12, recovery actuation and separation actuation of an information signal are performed, a compression signal is inputted into the 2nd signal-processing section 13, and, as for the regenerative signal reproduced from the Disk device section 10, said separated information signal is inputted into a microcomputer 11. Identification codes, such as a camera number, are inputted into the separation processing section 14 and the change processing section 15 as Cam-sel2 signal from a microcomputer 11 among said information signals.

[0022] As for the compression signal inputted into the 2nd signal-processing

section 13, elongation processing is carried out to the original video signal. In addition, when voice is contained in said compression signal, it operates so that separation processing of said video signal and sound signal may be made and elongation actuation of a speech compression signal may be made further.

[0023] A video signal is inputted into the OSD control section 91, and an OSD signal, for example, a camera number, a photography day entry, etc. are further inputted into the OSD control section 91 from a microcomputer 11. It is controlled so that the OSD control section 91 displays an alphabetic character or a graphic on an image screen, and synthetic processing is made for said OSD signal and said video signal on an image screen.

[0024] In the separation processing section 14, as for the video signal with which the change from the camera A outputted from the OSD control section 91 to Camera D is made, separation processing of the signal is carried out for every camera according to said Cam-sel2 signal, respectively. Moreover, generation of a video signal used as the synthetic screen which carried out screen quadrisection of the camera D from Camera A is also performed, and said each camera video signal by which separation processing was carried out is inputted into the change processing section 15. With the actuation signal inputted in said

actuation input terminal 90, the change processing section 15 chooses a video signal to come out of to a monitor 16 with Cam-sel2 signal from a microcomputer, and draw, and outputs to a monitor 16.

[0025] Here, the block diagram of the 1st signal-processing section 8 of drawing 1 and the 2nd signal-processing section 13 is shown in drawing 3 and drawing 4 , respectively, and explanation of operation is given below. drawing 3 -- setting -- 20 -- a video-signal input terminal and 21 -- a sound signal input terminal and 22 -- for an A/D converter and 25, as for the speech compression processing section and 26, the video compression processing section and 28 are [a video decoder, and 24 and 27 / an information signal input terminal and 23 / the synthetic processing section and 29] digital compression signal output terminals. The video decoder 23 separates into a luminance signal and a color-difference signal, and the video signal inputted from the input terminal 20 is inputted into A/D converter 24. Said inputted signal is changed into a digital signal by A/D converter 24, respectively, in the video compression processing section 25, efficient coding of for example, JPEG compression or MPEG compression is made, and an image digital compression signal is inputted into the synthetic processing section 26.

[0026] The sound signal inputted from an input terminal 21 is changed into a digital signal by A/D converter 27, efficient coding of ADPCM or an MPEG audio is made by the speech compression processing section 28, and a voice digital compression signal is inputted into the synthetic processing section 26.

[0027] The information signal inputted from an input terminal 22 is inputted into the synthetic processing section 26. In the synthetic processing section 26, multiplex [of an image digital compression signal, a voice digital compression signal, and the information signal] is carried out, and they are outputted from an output terminal 29.

[0028] drawing 4 -- setting -- 30 -- a video-signal output terminal and 31 -- for a video decoder, and 34 and 37, as for the video elongation processing section and 36, a D/A converter and 35 are [a sound signal output terminal and 32 / an information signal output terminal and 33 / the separation processing section and 39] input terminals.

[0029] The digital compression signal reproduced from the record medium is inputted from an input terminal 39, and is inputted into the separation processing section 36. By separating into an image digital compression signal, a voice digital compression signal, and an information signal, in the video elongation

processing section 35, decode processing of JPEG elongation or MPEG elongation is made, conversion is performed to a luminance signal and a color-difference signal by D/A converter 34, an image digital compression signal changes a digital compression signal into the original video signal by the video decoder 33, and the separation processing section 36 outputs a video signal from an output terminal 30.

[0030] In the voice elongation processing section 38, compound processing of ADPCM elongation or an MPEG audio is made, and a speech compression digital signal is changed into an analog signal with D/A converter 37, and outputs a sound signal from an output terminal 31. An information signal is outputted from an output terminal 32.

[0031] according to the gestalt of the 1st operation the above -- two or more video signals -- and -- or record and/or playback can be efficiently performed for a sound signal to random record and/or a refreshable record medium, the target video signal can be further searched and reproduced immediately based on the information signal for said every video signal, and the effectiveness is size.

[0032] (Gestalt of the 2nd operation) About the gestalt of the 2nd operation, explanation is given below using drawing 2 . In addition, explanation of the same

functional block as drawing 1 is omitted.

[0033] As for a record regenerative apparatus which has been stated by this invention, many expectations are carried out for an activity especially in the field of a surveillance camera. That is, retrieval and playback are immediately performed for a camera image to have been able to record two or more camera images, without stopping record actuation continuously, and to have been recorded on the record medium in parallel to said record actuation. So, with the gestalt of the 2nd operation, in order to consider as the structure which was especially suitable for the field of the invention of a monitor, the example which added the alarm signal to said information signal further is explained. An alarm signal is a signal which detected people by the **** sensor with which it was equipped for every camera, and actuation which records the image information over the detected camera concerned on a detail further rather than usual is performed. A surveillance camera image will continue recording an eternally near image in addition to [above] the time of an alarm. Then, when said alarm signal is not detected, the use effectiveness of a record medium can be raised by reducing the number of image record coma, increasing the number of image record coma and lowering image compressibility further, when image

compressibility is gathered further and said alarm signal is detected.

[0034] Drawing 8 shows the example of the camera unit 80 equipped with said alarm detection means. The body detectors 81, such as a pyroelectric sensor, are attached in the usual video camera 82, and the video signal which carried out multiplex [of said sensor signal] to said video signal is outputted from an output terminal 84 by the sensor video composition section 83. Such a camera unit 80 can be used for Camera D from the camera A of drawing 2 . As for a multiplex video signal including the alarm information outputted from the change processing section 6, alarm information is extracted by the amount of [7] information signal separation, and this alarm signal is inputted into a microcomputer 11.

[0035] In the 1st signal-processing section 8, said multiplex video signal is performing sequential compression processing for the image of 60 coma per second, for example. However, at the time of said non-alarm, per second, the image of 60 coma is unnecessary, for example, good at said extent on which the image of two coma is recorded per second to one camera. Then, the infanticide processing section 17 performs infanticide processing for the image compression digital signal outputted from said 1st signal-processing section 8 for

every camera. Furthermore, a microcomputer 11 receives infanticide processing section 17, and in order to include the infanticide information at the time of record in said information signal, it inputs a coma / second information.

[0036] As an example of the actuation at the time of the above-mentioned record, in order to record 2 coma / second for every four-set camera at the time of a non-alarm, the output signal of the infanticide processing section outputs the digital compression signal of 8 coma / second. Moreover, when an alarm is generated to Camera A, it operates so that the image of 15 coma / second may be recorded to the image of Camera A.

[0037] Furthermore in the field of a monitor, the record which went back to predetermined time of day from said alarm time of day is needed. Therefore, the 1st signal-processing section always needs to carry out digital compression of the image coma for the image of Camera A to the camera D irrespective of an alarm / non-alarm at a high speed. For example, when the 1st signal-processing section has the signal-processing capacity of 60 coma / second, compression processing is performed in 15 coma / second to said four cameras, respectively. In addition, a microcomputer 11 outputs a Cam-sel signal so that camera change timing may be changed by the number of sheets of every coma and arbitration.

[0038] In order to realize record to which only predetermined time amount went back from said alarm time of day, the record processing section 9 is equipped for example, with the memory means equivalent to a part for predetermined time, for example, accumulates the digital compression signal for 5 seconds. And it is made the configuration with which a 5-second part time-axis is late for the Disk device section to a real-time camera image, and record is made. Therefore, when a microcomputer detects an alarm, it becomes possible to realize record over the above-mentioned alarm.

[0039] Moreover, a microcomputer can also acquire a high definition image according to a situation by sending out the signal which carries out by making the rate of a compression ratio the 1st signal-processing section. Said information signal is extracted by the regeneration section 12, and the regenerative signal reproduced from the Disk device section usually performs **** to a monitor 16 by making a coma/second at the time of record into reproduction speed. About the selection means of an image against camera identification code, since it is the same as that of the gestalt of said 1st operation, explanation here is omitted.

[0040] Drawing 5 shows the example of DS of the output signal of the

signal-processing section in drawing 2 . As for camera identification code and 41, 40 is [a coma / second information, and 42] AV data. As shown in drawing 5 -A, the signal of Camera A to the camera D changes to time sharing, and the camera identification code 40, and the coma / second information 41 are added to each AV data. Record and playback are performed for one image data which changed to time sharing to a record medium as it is. Moreover, drawing 5 -B is the processing image Fig. of each image data at the time of playback. In drawing 5 -B, the image of the camera A with which the image of Camera C and 46 continued in the image of Camera B and 45, and the separation processing block of an image and 48 continued [43 / the image of Camera A and 44] in the image of Camera D and 47, the image of the camera B with which 49 continued, the image of the camera C with which 50 continued, and 51 show the image of the continuous camera D. A playback video signal is changed to the camera images 43-46 one by one, and is reproduced. In the separation processing 47, according to said camera identification code, separation processing is performed to Camera D from Camera A, and continuation playback of each camera image is performed according to said coma / second information.

[0041] Next, drawing 6 shows the data-processing image Fig. of the infanticide

processing section. As for camera identification code and 61, 60 is [AV data and 62] a coma / second information. Drawing 6 -A shows the case where the digital compression signal is outputted from said 1st signal-processing section for example, in 60 coma / second in the data of Camera A. By infanticide setup, data can be outputted at spacing as shown in drawing 6 -B by thinning out the image data of for example, one coma every two. In addition, it adds to AV data by making into an information signal the coma / second information 62 which is infanticide information.

[0042] Above, according to the gestalt of the 2nd operation, according to the alarm signal from a camera, the trowel which performs control of the number of image record coma per second and the rate of a compression ratio can be done, and a record medium can be used efficiently. Furthermore, the effectiveness which can record the image in front of predetermined time rather than an alarm generating time is size.

[0043] (Gestalt of the 3rd operation) As a gestalt of the 3rd operation, video-signal compression actuation of the 1st signal-processing section 8 is explained below. Drawing 7 shows the image data for image 1 coma by each block 6 coma, in image data [according / 63 / to JPEG compression] according

[70] to the data for image 1 coma, and 64, an invalid data, and 65-68 show the record block of a record medium, and 69 shows the data on the record medium for image 1 coma.

[0044] An image compression means changes in the data size after compression with patterns of an image also in which methods, such as JPEG or MPEG. If it follows, for example, a JPEG compression method is explained to an example, as the data for image data 1 coma are shown in the JPEG data 63, 71, 72, 73, 74, and 75, each sizes differ. When the image data with which sizes differ are recorded on a hard disk etc., in order to search a desired image coma, it must have the location recorded on the medium to all image coma information as for example, table information. Furthermore, the retrieval rate of an image coma falls. Then, it considered as the configuration which can perform relative retrieval by making data size for said image 1 coma into a fixed size without having said table information. In order to make data size for image 1 coma into a fixed size, it considered as the configuration which adds an invalid data to said JPEG data. Therefore, for example, it consists of four data blocks to a hard disk, it unifies into 128-K byte length, and record is performed. As for unification-ized processing of said data size, data processing is performed by the 1st

signal-processing section 8.

[0045] Above, according to the gestalt of the 3rd operation, by making data size after compression for image 1 coma into a fixed size, the retrieval rate of a record medium and management can be made easy, and the effectiveness is size.

[0046]

[Effect of the Invention] While recording two or more camera images on a record medium efficiently according to this invention above though it is few circuit scales in case record and/or playback are performed to a record medium, the record regenerative apparatus which can search and reproduce the target video signal immediately from a medium can be offered, and the effectiveness is remarkable.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] Drawing showing the configuration of the record regenerative apparatus in the 1st operation gestalt of this invention.

[Drawing 2] Drawing showing the configuration of the record regenerative apparatus in the 2nd operation gestalt of this invention.

[Drawing 3] The block diagram of the 1st signal-processing section.

[Drawing 4] The block diagram of the 2nd signal-processing section.

[Drawing 5] The explanatory view of the configuration of playback data, and separation actuation.

[Drawing 6] The explanatory view of infanticide processing.

[Drawing 7] The block diagram of the data in the 3rd operation gestalt of this invention.

[Drawing 8] The block diagram of the camera block with a sensor.

[Description of Notations]

1-4 Camera

5 Synchronous Processing Section

6 Change Processing Section

7 Information Signal Separation Section

8 1st Signal-Processing Section

10 Disk Device Section

11 Microcomputer

12 Regeneration Section

13 2nd Signal-Processing Section

14 Separation Processing Section

15 Change Processing Section

16 Monitor

17 Infanticide Processing Section

20 Video Input Terminal

21 Voice Input Terminal

22 Information Signal Input Terminal

23 Video Decoder

24 A/D Converter

25 Disk CC Section

20 Logical Sector Control Section

21 Physical Sector Control Section

22 File Management Section

23 File Space Secured Section

24 File Control Table

25 Video Compression Processing Section

26 Synthetic Processing Section

28 Speech Compression Processing Section

29 Digital AV Signal Output Terminal

30 Video Signal Output Terminal

31 Sound Signal Output Terminal

32 Information Signal Output Terminal

33 Video Decoder

34 D/A Converter

35 Video Elongation Processing Section

36 Separation Processing Section

38 Voice Elongation Processing Section

39 Digital AV Signal Input Terminal

40 Camera Number Information

41 Record Frame Rate Information

42 Digital AV Data

43 Image Information on Camera A

44 Image Information on Camera B

45 Image Information on Camera C

46 Image Information on Camera D

47 Separation Processing

48 Image Information on Continuation Camera A

49 Image Information on Continuation Camera B

50 Image Information on Continuation Camera C

51 Image Information on Continuation Camera D

60 Camera Number Information

61 Digital AV Data

62 Record Frame Rate Information

63 It is Data by JPEG1 Coma.

64 Invalid Data

65-68 Medium record block

70 Fixed-length JPEG Data Block

80 Camera Block

81 Sensor

82 Camera

83 Sensor Video Composition Section

84 Video Signal Output Terminal